THE REVOLUTION IN FACADE SOLUTIONS

LONG-LASTING PROTECTION AGAINST ALGAE
HEAT-REGULATING ENERGY-SAVING EFFECT
SUPERIOR PROTECTION OF THE BUILDING STRUCTURE

SELF-CLEANING EFFEKT
CRACK PREVENTING
ALGAE RESISTANCE
LESS THERMAL STRESS

Guaranteed by nature!
bergmann Solar ENSURES THAT FACADES REMAIN INTACT AND BEAUTIFUL FOR A LONG TIME.

The facade is the hallmark of a building. It provides protection, represents the building and gives it an individual touch.

With our bergmann Solar facade system, we offer renders and paints that are energetically sensible and also help optimise the structural physics of the building shell, minimise running costs and maintain the value of the property.

Developed as an energy-saving product, bergmann Solar has been perfected over the last 12 years and become a top-quality facade system. Thanks to the innovative composition featuring hollow glass microspheres that largely replace standard chemical and mineral additives, bergmann Solar facade renders and paints combine five essential quality properties:

- long-lasting resistance against algae, dirt and cracks
- ecologically harmless and non-hazardous to health
- energy-saving effects thanks to heat-regulating properties
- long-lasting protection of the building structure
- durable brilliancy for new buildings as well as renovation and redecoration projects

The result speaks for itself: facades that remain visually appealing for many years.

FOR GREATER VALUE RETENTION.

Whether detached houses or multi-family dwellings, historic buildings, commercial or industrial sites – facade engineering with bergmann Solar facade system is the key technology when it comes to creating new buildings and refurbishment projects which hold their value.

DEVELOPED TO MEET INDIVIDUAL REQUIREMENTS.

The bergmann Solar facade system provides the answer to the needs of building owners with high standards in terms of building quality, individuality and ecology. It combines individual products to form a perfectly coordinated complete system.

SCIENTIFICALLY PROVEN AND TRIED AND TESTED IN PRACTICE.

As suppliers for building materials, we develop practical solutions for building owners, architects and contractors. The products of the bergmann Solar system are thus based on the latest findings of building physics and many years of experience in facade engineering.

ENSURES THAT HUMIDITY, DIRT AND ALGAE STAND NO CHANCE.

Rain, sunshine and cold weather take enormous toll on the facade exterior over the years. Even small cracks in the facade surface allow moisture to penetrate, which may severely damage render and paint. Dirt contamination and the formation of algae also accelerate the ageing process. In addition to turning shabby, the facade also often requires extensive maintenance.

With our bergmann Solar paint and render system, we have developed a permanent solution that counteracts weather-related decay and deterioration of buildings and provides lasting protection against environmental influences, ensuring your building remains intact and beautiful for a long time.

bergmann Solar products provide excellent protection and ensure clean and dry facade surfaces that are free of algae and require no maintenance for a long time.

With bergmann Solar remain facades intact and beautiful for a long time.

Scientifically and practically proven.
bergmann Solar FOR NATURAL ALGAE CONTROL.

Numerous test series and the experience gained in the last 12 years have shown that bergmann Solar facade renders and paints provide significantly longer protection compared to standard products. Thanks to the hollow glass microspheres integrated as lightweight mineral aggregates, a stable pH-value of > 8.5 is guaranteed. Thus, humidity, mould and algae infestation do not stand a chance.

STANDARD FACADE:

- after 1 year
- after 6 years
- after 10 years
- after 12 years

FACADE WITH bergmann Solar:

- after 1 year
- after 6 years
- after 10 years
- after 12 years

DEEP DOWN FLEXIBLE CRACK FILLING.

When refurbishing facades, it is important to close existing cracks to prevent long-term consequential damage and maintain the protective function of the facade. Whereas standard exterior paints just cover cracks instead of filling them, bergmann Solar paint creates a flexible and resilient paint membrane that lastingly fills and safely seals static cracks while enabling maximum permeability of the paint system. The hollow glass microspheres create a moveable, flexible paint structure that compensates slight (not design-related) movements in the masonry and thus effectively protects the facade from new cracks forming.

PROTECTION AGAINST NEW STRESS CRACKS AND ALGAE INFESTATION THROUGH EVENLY WARM AND DRY SURFACES.

The hollow glass microspheres integrated into the bergmann Solar paint coating contribute to regulating the temperatures on the facade surface – the facade remains drier, provides better insulation and thus also helps save energy. Moreover, the low tension, flexible paint film also compensates minor stress.

bergmann Solar EXTERIOR WALL PAINT (CRACK-FILLING):

- Bergmann Solar exterior and refurbishment paint with hollow glass microspheres
- Natural protection against algae infestation through a dry surface: The heat-regulating, water vapour permeable and hydrophobic properties against pelting rain help improve the drying capacity of the facade surface and prevent algae and fungus growth.
bergmann Solar PROTECTS YOUR FACADE ACCORDING TO THE SAME PRINCIPLE AS THAT OF A MODERN FUNCTIONAL JACKET.

Similar to a functional jacket, moisture, e.g. dew or rain, hitting the surface is immediately dissipated thanks to the molecular structure of bergmann Solar, while water vapour can permeate from inside to outside and vice versa.

THE OPERATING PRINCIPLE OF bergmann Solar COMPARED TO A FUNCTIONAL JACKET:

Water vapour is transferred from inside to outside.

bergmann Solar façade paint/render (= protective membrane)

Impinging water droplets are dissipated and the surface dries much quicker.

Layer structure diagram of a functional jacket

Diagram of wall structure with bergmann Solar

Silicone resin renders and paints currently provide the most efficient environmental protection for facade coatings thanks to their excellent properties in terms of building physics.

bergmann Solar is the cutting-edge combination of silicone resin render and paint with a high percentage of ultra-fine hollow glass microspheres. The hollow glass microspheres embedded in a silicone resin matrix create a smoother, microporous and repellent surface. In the event of rain, droplets hitting the surface along with dirt particles are naturally rinsed off the facade (resistant against pelting rain with low contamination tendency).

The micro-fine molecule structure helps maintain a balanced temperature and humidity ratio. Similar to a breathable rain jacket, water vapour migrates from inside to outside, thus preventing condensation water from accumulating inside. bergmann Solar thus meets all the basic requirements for a long-lasting proper functioning of the facade.

HEAT-REGULATING PROPERTIES WITH ENERGY-SAFING EFFECT:

Warm and dry building materials insulate much better and can thus help save thermal energy. The hollow glass microspheres with insulating effect according to the thermos flask principle integrated in bergmann Solar coatings contribute noticeably to a balanced temperature and moisture ratio in buildings.
bergmann Solar REDUCES THE USE OF ALGAECIDES AND FUNGICIDES FOR FACADES TO AN ACCEPTABLE LEVEL.

Many manufacturers of facade renders and paints promise algae-free and clean facade surfaces and often resort to chemical additives such as algaecides and fungicides that are not encapsulated. When exposed to weather, high concentrations of these active agents are often washed out at the beginning. Once they are used up, the facade surface is no longer protected.

bergmann Solar facade renders and paints prevent this risk for the environment and health by using a low dosage of encapsulated film preservatives such as algaecides and fungicides against algae and fungal contamination.

Glass, a natural building material, makes this possible and is the main component of all bergmann Solar products in the form of hollow glass microspheres. They help maintain a smooth and dry surface with a pH value in the alkaline range.

The insulating effect of the hollow glass microspheres changes the dew point and ensures a much quicker transfer of moisture, thus preventing the growth of algae, fungus and other microorganisms in a purely physical rather than chemical manner.

Where standard facade construction products resort to chemical additives for algae and fungus-free surfaces, bergmann Solar uses glass in the form of hollow glass microspheres, which is environmentally sound and poses no health risk, as a long-term effective paint and render component.

FACADE WITH bergmann Solar:

- Standard facade paints contain algaecides and fungicides that are not encapsulated and are thus washed out of the facade, leading into the environment.
- bergmann Solar products only require a low dosage of algaecides and fungicides that is acceptable for the environment and health thanks to optimal drying behaviour and stable pH > 8.5 which prevents algae and fungal growth.

FACADE WITH bergmann Solar:

- Microorganisms like mould, algae and organic deposits find no breeding ground thanks to optimal drying behaviour and stable pH > 8.5.
- The hollow glass microspheres are the basis for minimizing chemical additives to a max. Chemical additives are reduced to an acceptable level thanks to the ecological building material glass in the form of hollow glass microspheres.
- The surface structure guarantees long-lasting colour fastness of the paints. The microporous surface prevents dirt particles from accumulating.
- The slightly moveable hollow glass microspheres fill fine crack structures of up to 0.5 mm and ensure a permanently low surface tension.

Natural, ecological – renders and paints with a health aspect.

The all-rounder among facade renders and paints.
ONE FOR ALL

OVERVIEW OF THE bergmann Solar RENDER & PAINT FACADE SYSTEM.

The properties of bergmann Solar develop their full potential when combined with the top quality bergmann building products for facade structures and thus ensure maximum durability.

APPLICATION ON EXISTING FACADES

bergmann Solar facade renders and paints are perfect for application on all stable and professionally prepared mineral substrates.

OLD TRADITIONAL MASONRY:

MASONRY WITH THERMAL INSULATION COMPOSITE SYSTEM:

APPLICATION ON NEW FACADES

The application of bergmann Solar facade renders and paints is easy, requiring standard workmanship skills. For new buildings with monolithic wall design, bergmann Solar basecoat, facade filler, decorative render and facade paint are ideal for a temperature- and humidity-regulating facade system.

THE INDIVIDUAL COMPONENTS OF THE bergmann Solar SYSTEM:

<table>
<thead>
<tr>
<th>PRODUCT NAME</th>
<th>TYPE</th>
<th>CONSUMPTION</th>
<th>SIZE</th>
<th>PACKING INFO</th>
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<tbody>
<tr>
<td>1  bergmann Solar basecoat</td>
<td>Lime cement-fibre light render</td>
<td>7.0 – 17.3</td>
<td>20 kg</td>
<td>42 buck/pal</td>
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<td>2  bergmann Solar facade filler</td>
<td>Pale, fibre-reinforced refurbishment mortar</td>
<td>6.3</td>
<td>33 kg</td>
<td>42 buck/pal</td>
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<td>3  bergmann Solar render primer</td>
<td>Quartz-filled primer for render</td>
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<td>15 l</td>
<td>24 buck/pal</td>
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<tr>
<td>4  bergmann Solar render</td>
<td>Decorative Silicn render with hollow glass microspheres</td>
<td>2 mm = 3.0 – 3.4, 3 mm = 3.6 – 3.9</td>
<td>22 kg</td>
<td>24 buck/pal</td>
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<tr>
<td>5  bergmann Solar paint primer</td>
<td>Primer for bergmann Solar or bergmann Solaren paint</td>
<td>0.15 – 0.25</td>
<td>15 l</td>
<td>24 buck/pal</td>
</tr>
<tr>
<td>6a bergmann Solar paint</td>
<td>Silicon based facade paint with hollow glass microspheres. Crack bridging &lt;0.3 mm</td>
<td>0.2 – 0.3</td>
<td>15 l</td>
<td>24 buck/pal</td>
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<tr>
<td>6b bergmann Solaren paint</td>
<td>Silicon based facade paint with hollow glass microspheres. Crack bridging &lt;0.5 mm</td>
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